

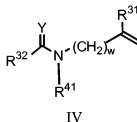
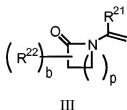
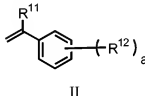
This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

**WHAT IS CLAIMED IS:**

1. (Original). A method comprising the steps of

- (a) curing a reactive monomer mix comprising at least one lens forming component and at least one ligand monomer under conditions sufficient to provide a reactivity ratio of the ligand monomer to at least one major lens forming component of at least about 0.45 lens; and
- (b) treating said lens with a silver solution to form an antimicrobial lens comprising silver in an amount which is at least about 80% of target silver concentration, where the ligand monomer is of Formulae I, II, III or IV,



wherein

- R¹ is hydrogen or C<sub>1-6</sub>alkyl;  
 R² is -OR³, -NH-R³, -S-(CH<sub>2</sub>)<sub>d</sub>-R³, or -(CH<sub>2</sub>)<sub>d</sub>-R³, wherein  
 d is 0-8;  
 R³ is substituted C<sub>1-6</sub>alkyl

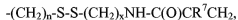
where the alkyl substituents are selected from one or more members of the group consisting of carboxylic acid, sulfonic acid,

phosphonic acid, amine, amidine, acetamide, nitrile, thiol, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyldisulfide, urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea, phenylthiourea, substituted C<sub>1-6</sub>alkyldisulfide, substituted phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted phenylurea, substituted C<sub>1-6</sub>alkylthiourea, and substituted phenylthiourea

wherein the C<sub>1-6</sub>alkyldisulfide, phenyldisulfide, C<sub>1-6</sub>alkylurea, C<sub>1-6</sub>alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;



wherein R<sup>4</sup>, R<sup>5</sup>, and R<sup>6</sup> are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C<sub>1-6</sub>alkyl, q is 1-6, and m is 0-6;



wherein R<sup>7</sup> is hydrogen or C<sub>1-6</sub>alkyl, n is 1-6, and x is 1-6;



wherein R<sup>8</sup>, R<sup>9</sup>, and R<sup>10</sup> are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C<sub>1-6</sub>alkyl, t is 1-6, and u is 0-6;

phenyl, benzyl, pyridinyl, pyrimidinyl, pyrazinyl, benzimidazolyl, benzothiazolyl, benzotriazolyl, naphthaloyl, quinolinyl, indolyl, thiadiazolyl, triazolyl,

4-methylpiperidin-1-yl, 4-methylpiperazin-1-yl, substituted phenyl, substituted benzyl, substituted pyridinyl, substituted pyrimidinyl,

substituted pyrazinyl, substituted benzimidazolyl, substituted benzothiazolyl, substituted benzotriazolyl, substituted naphthaloyl, substituted quinolinyl, substituted indolyl, substituted thiadiazolyl, substituted triazolyl, substituted 4-methylpiperidin-1-yl; or substituted 4-methylpiperazin-1-yl,

wherein the substituents are selected from one or more members of the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl, N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl, N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl, N-(aminopyrazine)carbonyl, N-(2-aminopyrimidine)phosphonyl, N-(2-aminopyridine)phosphonyl, N-(aminopyrazine)phosphonyl, N-(aminobenzimidazolyl)sulfonyl, N-(aminobenzothiazolyl)sulfonyl, N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl, N-(aminothiazolyl)sulfonyl, N-(aminotriazolyl)sulfonyl, N-(amino-4-methylpiperidinyl)sulfonyl, N-(amino-4-methylpiperazinyl)sulfonyl, N-(aminobenzimidazolyl)carbonyl, N-(aminobenzothiazolyl)carbonyl, N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl, N-(aminothiazolyl)carbonyl, N-(aminotriazolyl)carbonyl, N-(amino-4-methylpiperidinyl)carbonyl, N-(amino-4-methylpiperazinyl)carbonyl, N-(2-aminobenzimidazolyl)phosphonyl, N-(2-aminobenzothiazolyl)phosphonyl, N-(2-aminobenzotriazolyl)phosphonyl,

N-(2-aminoindolyl)phosphonyl, N-(2-aminothiazolyl)phosphonyl, N-(2-aminotriazolyl)phosphonyl, N-(amino-4-methylpiperidinyl)phosphonyl, N-(amino-4-methylpiperazinyl)phosphonyl, acetamide, nitrile, thiol, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyl disulfide, urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea, phenylthiourea, substituted C<sub>1-6</sub>alkyldisulfide, substituted phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted C<sub>1-6</sub>alkylthiourea, substituted phenylurea, and substituted phenylthiourea

wherein the C<sub>1-6</sub>alkyldisulfide, phenyldisulfide, C<sub>1-6</sub>alkylurea, C<sub>1-6</sub>alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;

a is 1-5;

R<sup>11</sup> is hydrogen or C<sub>1-6</sub>alkyl;

R<sup>12</sup> is hydroxyl, sulfonic acid, phosphonic acid, carboxylic acid, acetamide, thioC<sub>1-6</sub>alkylcarbonyl, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyl disulfide, urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea, phenylthiourea, -OR<sup>13</sup>, -NH-R<sup>13</sup>, -S-(CH<sub>2</sub>)<sub>d</sub>-R<sup>13</sup>, -(CH<sub>2</sub>)<sub>d</sub>-R<sup>13</sup>, -C(O)NH-(CH<sub>2</sub>)<sub>d</sub>-R<sup>13</sup>, -C(O)-(CH<sub>2</sub>)<sub>d</sub>-R<sup>13</sup>, substituted C<sub>1-6</sub>alkyldisulfide, substituted phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted phenylurea, substituted phenylthiourea or substituted C<sub>1-6</sub>alkylthiourea wherein the substituents are selected from the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;

where

d is 0-8;

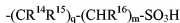
R<sup>13</sup> is thioC<sub>1-6</sub>alkylcarbonyl;

substituted C<sub>1-6</sub>alkyl

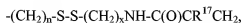
where the alkyl substituents are selected from one or more

members of the group consisting of hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyldisulfide, urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea, phenylthiourea, substituted C<sub>1-6</sub>alkyldisulfide, substituted phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted phenylurea, substituted C<sub>1-6</sub>alkylthiourea and substituted phenylthiourea

wherein the C<sub>1-6</sub>alkyldisulfide, phenyldisulfide, C<sub>1-6</sub>alkylurea, C<sub>1-6</sub>alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;



where R<sup>14</sup>, R<sup>15</sup>, and R<sup>16</sup> are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C<sub>1-6</sub>alkyl, q is 1-6, and m is 0-6;



where R<sup>17</sup> is hydrogen or C<sub>1-6</sub>alkyl, n is 1-6, and x is 1-6;



where R<sup>18</sup>, R<sup>19</sup>, and R<sup>20</sup> are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C<sub>1-6</sub>alkyl, t is 1-6, and u is 0-6;

phenyl; benzyl; pyridinyl; pyrimidinyl; pyrazinyl; benzimidazolyl; benzothiazolyl; benzotriazolyl; naphthaloyl; quinolinyl; indolyl; thiadiazolyl; triazolyl; 4-methylpiperidin-1-yl; 4-methylpiperazin-1-yl;

substituted phenyl; substituted benzyl; substituted pyridinyl;  
substituted pyrimidinyl; substituted pyrazinyl;  
substituted benzimidazolyl; substituted benzothiazolyl;  
substituted benzotriazolyl; substituted naphthaloyl;  
substituted quinolinyl; substituted indolyl; substituted thiadiazolyl;  
substituted triazolyl; substituted 4-methylpiperidin-1-yl; or substituted  
4-methylpiperazin-1-yl

wherein the substituents are selected from one or more members of the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl, N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl, N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl, N-(aminopyrazine)carbonyl, N-(2-aminopyrimidine)phosphonyl, N-(2-aminopyridine)phosphonyl, N-(aminopyrazine)phosphonyl, N-(aminobenzimidazolyl)sulfonyl, N-(aminobenzothiazolyl)sulfonyl, N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl, N-(aminothiazolyl)sulfonyl, N-(aminotriazolyl)sulfonyl, N-(amino-4-methylpiperidinyl)sulfonyl, N-(amino-4-methylpiperazinyl)sulfonyl, N-(aminobenzimidazolyl)carbonyl, N-(aminobenzothiazolyl)carbonyl, N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl, N-(aminothiazolyl)carbonyl, N-(aminotriazolyl)carbonyl, N-(amino-4-methylpiperidinyl)carbonyl, N-(amino-4-methylpiperazinyl)carbonyl, N-(2-aminobenzimidazolyl)phosphonyl,

N-(2-aminobenzothiazolyl)phosphonyl,  
 N-(2-aminobenzotriazolyl)phosphonyl,  
 N-(2-aminoindolyl)phosphonyl, N-(2-aminothiazolyl)phosphonyl,  
 N-(2-aminotriazolyl)phosphonyl, N-(amino-4-methylpiperidinyl)  
 phosphonyl, N-(amino-4-methylpiperazinyl) phosphonyl,  
 acetamide, nitrile, thiol, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyl  
 disulfide, urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea,  
 C<sub>1-6</sub>alkylthiourea, phenylthiourea, substituted C<sub>1-6</sub>alkyldisulfide,  
 substituted phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted  
 C<sub>1-6</sub>alkylthiourea, substituted phenylurea, and substituted  
 phenylthiourea

wherein the C<sub>1-6</sub>alkyldisulfide, phenyldisulfide, C<sub>1-6</sub>alkylurea,  
 C<sub>1-6</sub>alkylthiourea, phenylurea, and phenylthiourea substituents  
 are selected from the group consisting of C<sub>1-6</sub>alkyl,  
 haloC<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid,  
 phosphonic acid, amine, amidine, acetamide, and nitrile;

b is 1-5; p is 1-5; R<sup>21</sup> is hydrogen;

R<sup>22</sup> is hydroxyl, sulfonic acid, phosphonic acid, carboxylic acid,  
 thioC<sub>1-6</sub>alkylcarbonyl, thioC<sub>1-6</sub>alkylaminocarbonyl, C<sub>1-6</sub>alkyldisulfide,  
 phenyldisulfide, -C(O)NH(CH<sub>2</sub>)<sub>1-6</sub>-SO<sub>3</sub>H, -C(O)NH(CH<sub>2</sub>)<sub>1-6</sub>-P(O)(OH)<sub>2</sub>, -OR<sup>23</sup>,  
 -NH-R<sup>23</sup>, -C(O)NH-(CH<sub>2</sub>)<sub>d</sub>-R<sup>23</sup>, -S-(CH<sub>2</sub>)<sub>d</sub>-R<sup>23</sup>, -(CH<sub>2</sub>)<sub>d</sub>-R<sup>23</sup>, urea, C<sub>1-6</sub>alkylurea,  
 phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea, phenylthiourea, substituted  
 C<sub>1-6</sub>alkyldisulfide, substituted phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted,  
 C<sub>1-6</sub>alkylthiourea substituted phenylurea or substituted phenylthiourea wherein the  
 substituents are selected from the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl,  
 halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine,  
 acetamide, and nitrile,

where

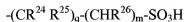
d is 0-8;

R<sup>23</sup> is thioC<sub>1-6</sub>alkylcarbonyl,

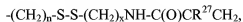
C<sub>1-6</sub>alkyl,  
substituted C<sub>1-6</sub>alkyl

where the alkyl substituents are selected from one or more members of the group consisting of C<sub>1-6</sub>alkyl, halo C<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyldisulfide, urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea, phenylthiourea, substituted C<sub>1-6</sub>alkyldisulfide, substituted phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted phenylurea, substituted C<sub>1-6</sub>alkylthiourea, and substituted phenylthiourea

wherein the C<sub>1-6</sub>alkyldisulfide, phenyldisulfide, C<sub>1-6</sub>alkylurea, C<sub>1-6</sub>alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;



where R<sup>24</sup>, R<sup>25</sup>, and R<sup>26</sup> are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C<sub>1-6</sub>alkyl, q is 1-6, and m is 0-6



where R<sup>27</sup> is hydrogen or C<sub>1-6</sub>alkyl, n is 1-6, and x is 1-6;



where R<sup>28</sup>, R<sup>29</sup>, and R<sup>30</sup> are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C<sub>1-6</sub>alkyl, t is 1-6, and u is 0-6;

phenyl; benzyl; pyridinyl; pyrimidinyl; pyrazinyl; benzimidazolyl; benzothiazolyl; benzotriazolyl; naphthaloyl; quinolinyl; indolyl; thiadiazolyl; triazolyl;



4-methylpiperidin-1-yl; 4-methylpiperazin-1-yl;  
substituted phenyl; substituted benzyl; substituted pyridinyl;  
substituted pyrimidinyl; substituted pyrazinyl;  
substituted benzimidazolyl; substituted benzothiazolyl;  
substituted benzotriazolyl; substituted naphthaloyl;  
substituted quinolinyl; substituted indolyl; substituted thiadiazolyl;  
substituted triazolyl; substituted 4-methylpiperidin-1-yl; or substituted  
4-methylpiperazin-1-yl,

wherein the substituents are selected from one or more members of  
the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, sulfonic  
acid, phosphonic acid, hydroxyl, carboxylic acid, amine, amidine,  
N-(2-aminopyrimidine)sulfonyl, N-(aminopyridine)sulfonyl,  
N-(aminopyrazine)sulfonyl,  
N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl,  
N-(aminopyrazine)carbonyl, N-(2-aminopyrimidine)phosphonyl,  
N-(2-aminopyridine)phosphonyl, N-(aminopyrazine)phosphonyl,  
N-(aminobenzimidazolyl)sulfonyl,  
N-(aminobenzothiazolyl)sulfonyl,  
N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl,  
N-(aminothiazolyl)sulfonyl,  
N-(aminotriazolyl)sulfonyl,  
N-(amino-4-methylpiperidinyl)sulfonyl,  
N-(amino-4-methylpiperazinyl)sulfonyl,  
N-(aminobenzimidazolyl)carbonyl,  
N-(aminobenzothiazolyl)carbonyl,  
N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl,  
N-(aminothiazolyl)carbonyl,  
N-(aminotriazolyl)carbonyl,  
N-(amino-4-methylpiperidinyl)carbonyl,  
N-(amino-4-methylpiperazinyl)carbonyl,

N-(2-aminobenzimidazolyl)phosphonyl,  
N-(2-aminobenzothiazolyl)phosphonyl,  
N-(2-aminobenzotriazolyl)phosphonyl,  
N-(2-aminoindolyl)phosphonyl, N-(2-aminothiazolyl)phosphonyl,  
N-(2-aminotriazolyl)phosphonyl, N-(amino-4-methylpiperidinyl)  
phosphonyl, N-(amino-4-methylpiperazinyl) phosphonyl,  
acetamide, nitrile, thiol, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyl  
disulfide, urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea,  
C<sub>1-6</sub>alkylthiourea, phenylthiourea, substituted C<sub>1-6</sub>alkyldisulfide,  
substituted phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted  
C<sub>1-6</sub>alkylthiourea, substituted phenylurea, and substituted  
phenylthiourea

wherein the C<sub>1-6</sub>alkyldisulfide, phenyldisulfide, C<sub>1-6</sub>alkylurea,  
C<sub>1-6</sub>alkylthiourea, phenylurea, and phenylthiourea substituents  
are selected from the group consisting of C<sub>1-6</sub>alkyl,  
haloC<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid,  
phosphonic acid, amine, amidine, acetamide, and nitrile;

w is 0-1;

Y is oxygen or sulfur; R<sup>31</sup> is hydrogen or C<sub>1-6</sub>alkyl;

R<sup>32</sup> is hydroxyl, sulfonic acid, phosphonic acid, carboxylic acid,  
thioC<sub>1-6</sub>alkylcarbonyl, thioC<sub>1-6</sub>alkylaminocarbonyl, -C(O)NH-(CH<sub>2</sub>)<sub>d</sub>-R<sup>33</sup>, -O-R<sup>33</sup>,  
-NH-R<sup>33</sup>, -S-(CH<sub>2</sub>)<sub>d</sub>-R<sup>33</sup>, -(CH<sub>2</sub>)<sub>d</sub>-R<sup>33</sup>, C<sub>1-6</sub>alkyldisulfide, phenyldisulfide, urea,  
C<sub>1-6</sub>alkylurea, phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea, phenylthiourea,  
C<sub>1-6</sub>alkylamine, phenylamine, substituted C<sub>1-6</sub>alkyldisulfide, substituted  
phenyldisulfide, substituted phenylurea, substituted C<sub>1-6</sub>alkylamine, substituted  
phenylamine, substituted phenylthiourea, substituted C<sub>1-6</sub>alkylurea or substituted  
C<sub>1-6</sub>alkylthiourea wherein the substituents are selected from the group consisting of  
C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid,  
phosphonic acid, amine, amidine, acetamide, and nitrile

where

d is 0-8;

R<sup>33</sup> is thioC<sub>1-6</sub>alkylcarbonyl, C<sub>1-6</sub>alkyl, substituted C<sub>1-6</sub>alkyl

where the alkyl substituents are selected from one or more members of the group consisting of C<sub>1-6</sub>alkyl, halo C<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, nitrile, thiol, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyldisulfide, urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea, C<sub>1-6</sub>alkylthiourea, phenylthiourea, substituted C<sub>1-6</sub>alkyldisulfide, substituted phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted phenylurea, substituted C<sub>1-6</sub>alkylthiourea or substituted phenylthiourea

wherein the C<sub>1-6</sub>alkyldisulfide, phenyldisulfide, C<sub>1-6</sub>alkylurea, C<sub>1-6</sub>alkylthiourea, phenylurea, and phenylthiourea substituents are selected from the group consisting of C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic acid, amine, amidine, acetamide, and nitrile;

$-(CR^{34}R^{35})_q-(CHR^{36})_m-SO_3H$

where R<sup>34</sup>, R<sup>35</sup>, and R<sup>36</sup> are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C<sub>1-6</sub>alkyl, q is 1-6, and m is 0-6;

$-(CH_2)_n-S-S-(CH_2)_x-NH-C(O)CR^{37}CH_2$ ,

where R<sup>37</sup> is hydrogen or C<sub>1-6</sub>alkyl, n is 1-6, and x is 1-6;

$-(CR^{38}R^{39})_t-(CHR^{40})_u-P(O)(OH)_2$

where R<sup>38</sup>, R<sup>39</sup>, and R<sup>40</sup> are independently selected from the group consisting of hydrogen, halogen, hydroxyl, and C<sub>1-6</sub>alkyl, t is 1-6, and u is 0-6;

phenyl; benzyl; pyridinyl; pyrimidinyl; pyrazinyl;

benzimidazolyl; benzothiazolyl; benzotriazolyl;  
naphthaloyl; quinoliny; indolyl; thiadiazolyl;  
triazolyl; 4-methylpiperidin-1-yl; 4-methylpiperazin-1-yl;  
substituted phenyl; substituted benzyl; substituted pyridinyl;  
substituted pyrimidinyl; substituted pyrazinyl;  
substituted benzimidazolyl; substituted benzothiazolyl;  
substituted benzotriazolyl; substituted naphthaloyl;  
substituted quinoliny; substituted indolyl;  
substituted thiadiazolyl; substituted triazolyl;  
substituted 4-methylpiperidin-1-yl; or  
substituted 4-methylpiperazin-1-yl,

wherein the substituents are selected from one or more members of the group consisting of C<sub>1-6</sub>alkyl, halo C<sub>1-6</sub>alkyl, halogen, sulfonic acid, phosphonic acid, hydroxyl, carboxylic acid, amine, amidine, N-(2-aminopyrimidine)sulfonyl, N-(aminopyridine)sulfonyl, N-(aminopyrazine)sulfonyl, N-(2-aminopyrimidine)carbonyl, N-(aminopyridine)carbonyl, N-(aminopyrazine)carbonyl, N-(2-aminopyrimidine)phosphonyl, N-(2-aminopyridine)phosphonyl, N-(aminopyrazine)phosphonyl, N-(aminobenzimidazolyl)sulfonyl, N-(aminobenzothiazolyl)sulfonyl, N-(aminobenzotriazolyl)sulfonyl, N-(aminoindolyl)sulfonyl, N-(aminothiazolyl)sulfonyl, N-(aminotriazolyl)sulfonyl, N-(amino-4-methylpiperidinyl)sulfonyl, N-(amino-4-methylpiperazinyl)sulfonyl, N-(aminobenzimidazolyl)carbonyl, N-(aminobenzothiazolyl)carbonyl, N-(aminobenzotriazolyl)carbonyl, N-(aminoindolyl)carbonyl, N-(aminothiazolyl)carbonyl,

N-(aminotriazolyl)carbonyl,  
N-(amino-4-methylpiperidinyl)carbonyl,  
N-(amino-4-methylpiperazinyl)carbonyl,  
N-(2-aminobenzimidazolyl)phosphonyl,  
N-(2-aminobenzothiazolyl)phosphonyl,  
N-(2-aminobenzotriazolyl)phosphonyl,  
N-(2-aminoindolyl)phosphonyl, N-(2-aminothiazolyl)phosphonyl,  
N-(2-aminotriazolyl)phosphonyl, N-(amino-4-methylpiperidinyl)  
phosphonyl, N-(amino-4-methylpiperazinyl) phosphonyl,  
acetamide, nitrile, thiol, C<sub>1-6</sub>alkyldisulfide, C<sub>1-6</sub>alkylsulfide, phenyl  
disulfide, urea, C<sub>1-6</sub>alkylurea, phenylurea, thiourea,  
C<sub>1-6</sub>alkylthiourea, phenylthiourea, substituted C<sub>1-6</sub>alkyldisulfide,  
substituted phenyldisulfide, substituted C<sub>1-6</sub>alkylurea, substituted  
C<sub>1-6</sub>alkylthiourea, substituted phenylurea, and substituted  
phenylthiourea

wherein the C<sub>1-6</sub>alkyldisulfide, phenyldisulfide, C<sub>1-6</sub>alkylurea,  
C<sub>1-6</sub>alkylthiourea, phenylurea, and phenylthiourea substituents  
are selected from the group consisting of C<sub>1-6</sub>alkyl,  
haloC<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid,  
phosphonic acid, amine, amidine, acetamide, and nitrile;

R<sup>41</sup> is hydrogen, C<sub>1-6</sub>alkyl, phenyl, C<sub>1-6</sub>alkylcarbonyl, phenylcarbonyl, substituted  
C<sub>1-6</sub>alkyl, substituted phenyl, substituted C<sub>1-6</sub>alkylcarbonyl or substituted  
phenylcarbonyl,

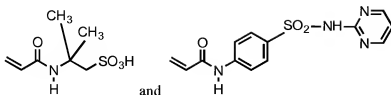
wherein

the substituents are selected from the group consisting of C<sub>1-6</sub>alkyl,  
haloC<sub>1-6</sub>alkyl, halogen, hydroxyl, carboxylic acid, sulfonic acid, phosphonic  
acid, amine, amidine, acetamide, and nitrile.

2. **(Original).** The method of claim 1 wherein said ratio is at least about 0.5.

3. (Original). The method of claim 1 wherein the lens comprises silver in an amount which is at least about 90% of the target silver concentration.
4. (Original). The method of claim 1 wherein said at least one lens forming component comprises at least about 30 weight percent of said reactive monomer mixture.
5. (Original). The method of claim 1 wherein said at least one lens forming component comprises at least about 50 weight percent of said reactive monomer mixture.
6. (Original). The method of claim 4 wherein said at least one lens forming component comprises at least two lens forming components having similar solubilities.
7. (Original). The method of claim 1 wherein the ligand monomer is a monomer of Formula I and,  
R<sup>1</sup> is hydrogen or C<sub>1-3</sub>alkyl;  
R<sup>2</sup> is NH-R<sup>3</sup>;  
d is 0;  
R<sup>3</sup> is substituted phenyl, -(CHR<sup>4</sup> R<sup>5</sup>)<sub>q</sub>-(CHR<sup>6</sup>)<sub>m</sub>-SO<sub>3</sub>H,  
-(CR<sup>8</sup>R<sup>9</sup>)<sub>r</sub>-(CHR<sup>10</sup>)<sub>s</sub>-P(O)(OH)<sub>2</sub> or -(CH<sub>2</sub>)<sub>n</sub>-S-S-(CH<sub>2</sub>)<sub>x</sub>NH-C(O)CR<sup>7</sup>CH<sub>2</sub>;  
R<sup>4-6</sup> are independently selected from the group consisting of hydrogen or C<sub>1-3</sub>alkyl;  
q is 1-3; m is 1-3;  
R<sup>7-10</sup> are independently selected from the group consisting of hydrogen or C<sub>1-3</sub>alkyl;  
t is 1-3; u is 1-3; n is 2-4; and x is 2-4.
8. (Original). The method of claim 1 wherein the lens is a soft contact lens.
9. (Original). The method of claim 1 wherein the lens comprises about 0.01 to about 20 weight percent ligand monomer.
10. (Original). The method of claim 1 wherein the lens comprises about 0.01 to about 3 weight percent ligand monomer.



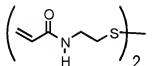


16. **(Original).** The method of claim 1 wherein the antimicrobial lens comprises about 10 ppm to about 4,000 ppm silver.

17. **(Original).** The method of claim 1 wherein the antimicrobial lens comprises about 30 ppm to about 2000 ppm silver.

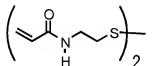
18. **(Original).** The method of claim 1 wherein the antimicrobial lens comprises about 30 ppm to about 1000 ppm silver.

19. **(Original).** The method of claim 1 wherein the lens is a silicone hydrogel and the ligand monomer is



20. **(Original).** The method of claim 19 wherein silver is present at about 30 ppm to about 2000 ppm and the ligand monomer is present at about 0.01 to about 3 weight percent.

21. **(Original).** The method of claim 13 wherein the ligand monomer is





22. **(Original).** The method of claim 21 wherein silver is present in the antimicrobial lens at about 30 ppm to about 2000 ppm and the ligand monomer is present at about 0.01 to about 3 weight percent.

23. **(Withdrawn).** The method of claim 21 wherein the lens formulation is etafilcon A or aquafilcon A.

24. **(Original).** The method of claim 1 wherein the silver solution is aqueous silver nitrate having a concentration of about 0.1 µg/mL to about 0.3 g/mL.

25. **(Original).** The method of claim 1 wherein, treating comprises soaking the lens with or in a silver solution.

26. **(Original).** The method of claim 25 wherein, the lens is soaked in the silver solution for about 2 minutes to about 2 hours.

27. **(Original).** The method of claim 1 wherein, treating comprises storing the lens in the silver solution for about 20 minutes to about 5 years.

28. **(Original).** The method of claim 1 wherein said monomer mix further comprises at least one initiator.

29. **(Original).** The method of claim 28 wherein said initiator comprises at least one photoinitiator.

30. **(Original).** The method of claim 29 wherein the curing step comprises an initiator concentration and light intensity sufficient to provide the reactivity ratio of at least about 0.45.

31. **(Original).** The method of claim 30 wherein the initiator concentration is at least about 0.4 weight % and said intensity is at least about 4 mW/cm<sup>2</sup>.

32. **(Original).** The method of claim 30 wherein the initiator concentration is at least about 0.9 weight % and said intensity is at least about 1 mW/cm<sup>2</sup>.

33. **(Original).** The method of claim 30 wherein the initiator concentration is at least about 0.4 weight % and said intensity is at least about 6 mW/cm<sup>2</sup>.

34. **(Original).** The method of claim 30 wherein the initiator concentration is at least about 0.9 weight % and said intensity is at least about 4 mW/cm<sup>2</sup>.

35. **(Original).** The method of claim 30 wherein the initiator concentration about 0.4 to about 2 weight % and said intensity is at least about 4 mW/cm<sup>2</sup>.